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EXAMINER

STEIN, STEPHEN J

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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1775

DATE MAILED: 11/06/2002

4

Please find below and/or attached an Office communication concerning this application or proceeding.

TC-4

Office Action Summary

Application No.

10/090,406

Applicant(s)

NAJI ET AL.

Examiner

Stephen J Stein

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 12-24 is/are rejected.
- 7) ☒ Claim(s) 9-11 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other: ____.

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DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority based on applications filed in Australia. It is noted, however, that applicants have not filed certified copies of the Australian applications as required by 35 U.S.C. 119(b).

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1-3, 12-16 and 20-24 provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-4, 6, 8, 9-18, 21, 23-31 of copending Application No. 10/090,375. Although the conflicting claims are not identical, they are not patentably distinct from each other because it would have been obvious to one of ordinary skill in the art to apply the coating formulation claimed in 10/090,375 to a substrate layer as claimed in the instant application since the claims of the 10/090,375 application claims that the coating formulation is for use in coating a building product.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 2 and 13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. Claim 2 recites the limitation “wherein each functional layer includes one or more functional additives to provide desired properties to that layer”. This limitation makes the claim indefinite since the “desired properties” are not specifically claimed, it is unclear as to what “functional additives” may be added. Consequently, the scope of the claim is unclear.

7. Claim 13 recites the limitation “wherein the dewatering agent is provided in a sufficient quantity to maintain porosity in the functional layer(s) and the substrate during dewatering”. This limitation makes the claim indefinite because the functional layer is not specified in the claim and it therefore unclear how much dewatering agent is necessary to maintain the porosity. Consequently, the scope of the claim is unclear.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1, 2, 4-8, 12-20 and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by US 4,818,595 (Ellis).

Ellis discloses a fire barrier laminate comprising a plywood substrate, a coating comprising calcium aluminate cement (hydraulic binder) and a filler of alumina trihydrate or silica flour (particulate dewatering agent) (col. 72, lines 34-68). The reference still further teaches that the coating is applied to an asbestos cement board (reinforced cementitious product) or gypsum wall board (gypsum building board) (col. 26, lines 34-46). Ellis still further teaches that the calcium aluminate cement is white due to the high percentage of Al_2O_3 in the cement (col. 20, lines 10-19). Ellis still further teaches that the coating composition includes a gauging component of MgCl_2 or MgSO_4 (functional additive) (col. 72, lines 41-46). The reference further discloses in examples that the coating may applied to either one side of the substrate, both sides of the substrate, or between two pieces of laminated plywood (See for instance, Examples C, N and P) and that the thickness of the coating can be varied from a few mils (~ 0.1 mm) to 1/16 inches (15mm) thick (col. 61, lines 13-15). Ellis still further teaches that the coating may used in conjunction with reinforcing geotextiles (reinforcing layer) such as woven or non-woven fiberglass of other natural or synthetic fabrics (abstract). The reference finally teaches that the binder components as defined by applicants' specification (high alumina calcium aluminate cement and TiO_2 pigment) are 18.7 wt% based on the total weight of dry ingredients (See Table 1, Example 1). With regard to the process limitations in dependent claims 16 and 24, absent a showing of a materially different product, process limitations in product claims are not dispositive on patentability. See MPEP 2113.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ellis as applied to claim 1 above, and further in view of US 5,236,773 (Sorathia et al.).

As stated above, Ellis teaches the claimed composite of claim 1, and further teaches that coating composition exhibits excellent adhesion to substrates such as metal, wood, fiberboard, concrete, wall paper, fiberglass fabric, ceramic tiles and asbestos cement (col. 19, lines 49-53). Ellis fails to teach that the substrate is a fiber reinforced base material.

Sorathia teaches a fire resistant structure comprising a ceramic coating on a substrate of fiber reinforced plastic composite (col. 35-53). Sorathia further teaches fire reinforced plastic composite materials are being used to an increasing extent as replacements for steel because of the advantages of lighter weight and improved corrosion resistance (col. 2, lines 6-17).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to substitute the fiber reinforced plastic substrate of Sorathia for the substrate used in the composite of Ellis because the lighter weight of the material would allow for easier transportation of the finished composite.

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12. Claims 21 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellis as applied to claim 1 above, and further in view of US 4,981,740 (Larsen).

Larsen teaches a method of making concrete articles using a hydraulic cement and further teaches that fly ash with a particle size of 0.25mm (160 μ) is a suitable substitute filler for silica flour (col. 6, lines 50-52 and lines 30-31).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to substitute fly ash with a particle size of greater than 100 μ as taught by Larsen for the filler disclosed in the coating composition of Ellis, because it is disclosed that fly ash is a suitable filler substitute for silica flour in a similar composition (e.g. water settable material).

Allowable Subject Matter

13. Claims 9-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

14. The following is a statement of reasons for the indication of allowable subject matter:

While the prior art discloses a fire barrier laminate comprising a substrate with a coating comprising calcium aluminate cement (hydraulic binder) and a filler of alumina trihydrate or silica flour (particulate dewatering agent) (Ellis), the prior art taken as whole, fails to teach or suggest a reinforcing layer of fiber reinforced cement on the functional layer.


Conclusion

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen Stein whose telephone number is (703) 305-0583. The

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examiner can normally be reached on Monday through Friday from 8:30 a.m. to 5:00 p.m. If the attempts to reach the examiner are unsuccessful, the examiner's supervisor, Deborah Jones can be reached by dialing (703) 308-3822. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group Receptionist whose phone number is (703) 308-0661. The fax phone number for this group is (703) 872-9310 for non-final responses and (703) 872-9311 for after final responses.

November 3, 2002


Stephen J. Stein